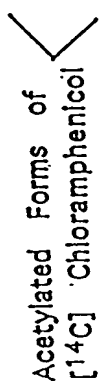
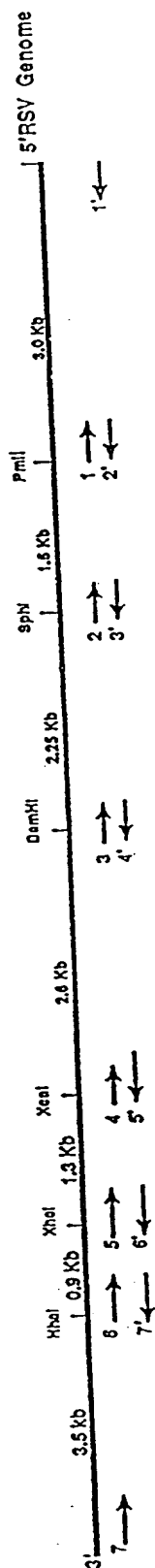


FIG. 1



**FIG. 2**

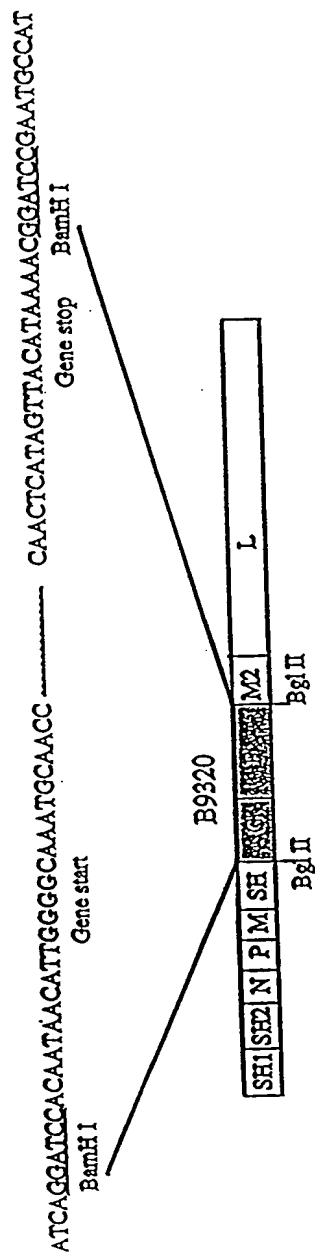


Primer Sequences:

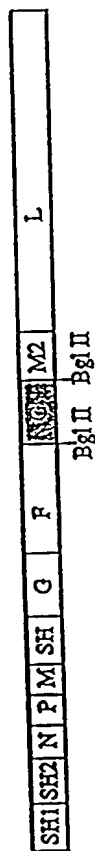
- 1: 5' GTTTAAACACGTGGTGAG
- 2: 5' ACATATAGGCATGCACC
- 3: 5' GACAAAATGGATCCCATI
- 4: 5' TGGTGGTATACCAAGTGT
- 5: 5' TACCAAGAGCTCGAGTCA
- 6: 5' TTTACCATATGCGCTAATGT
- 7: 5' ACGCGAAAAAATGCGTACA
- 1': 5' ACGAGAAAAAAGTGTCAA
- 2': 5' CTCACCAACGTGTTAAAC
- 3': 5' GGTGCATGCCTATATGT
- 4': 5' AATGGATCCATTTTGTC
- 5': 5' AACACTGGTATACCAACCA
- 6': 5' TGACTCGAGCTCTTGTA
- 7': 5' ACATTAGGCATATGGTAAA

FIG. 3

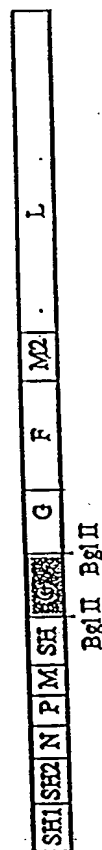
A. RSVB-GF



B. RSVB9320G-F/M2



C. RSVB9320G-SH/G



FIGS. 4A-C

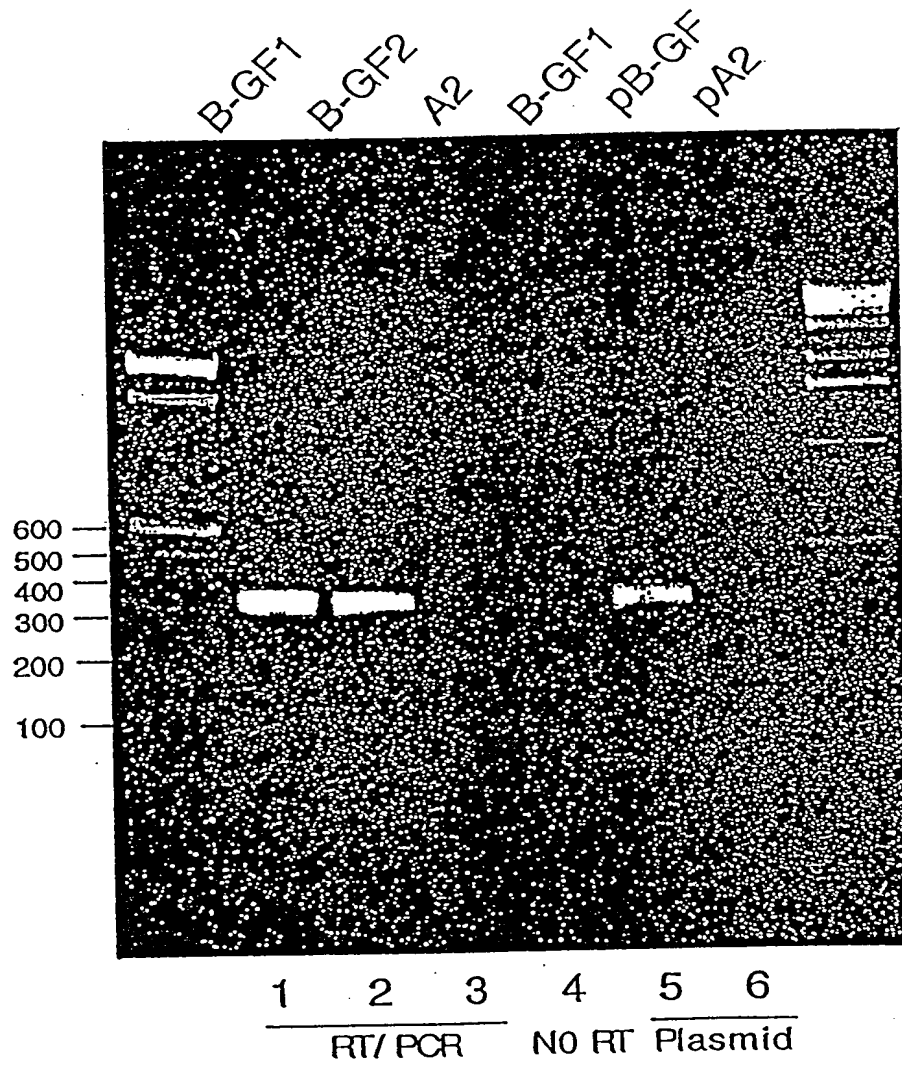
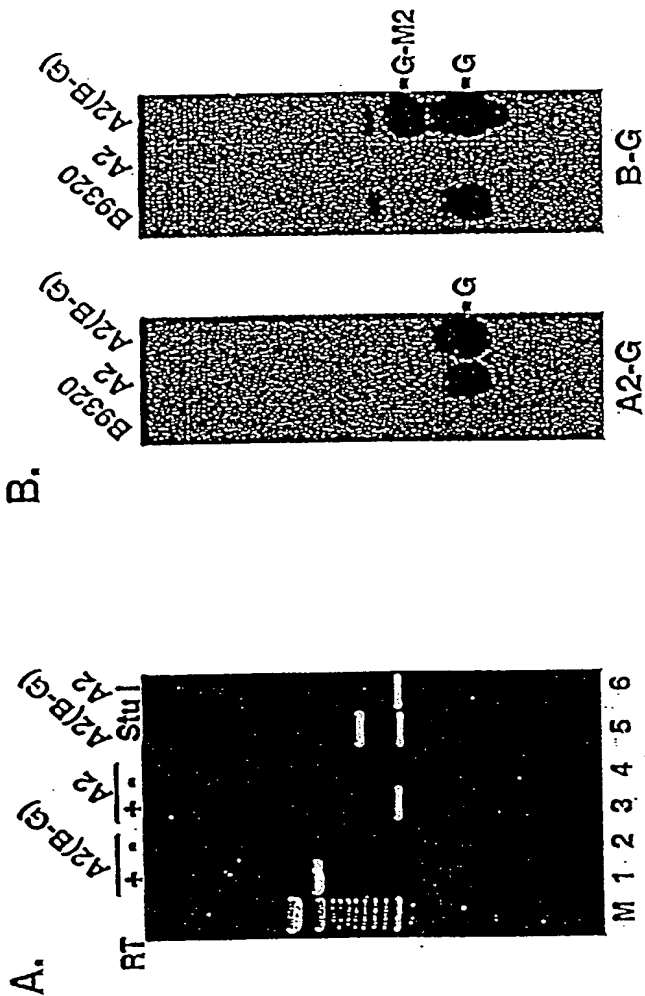


FIG. 5



FIGS. 6A-B

09368076.000399

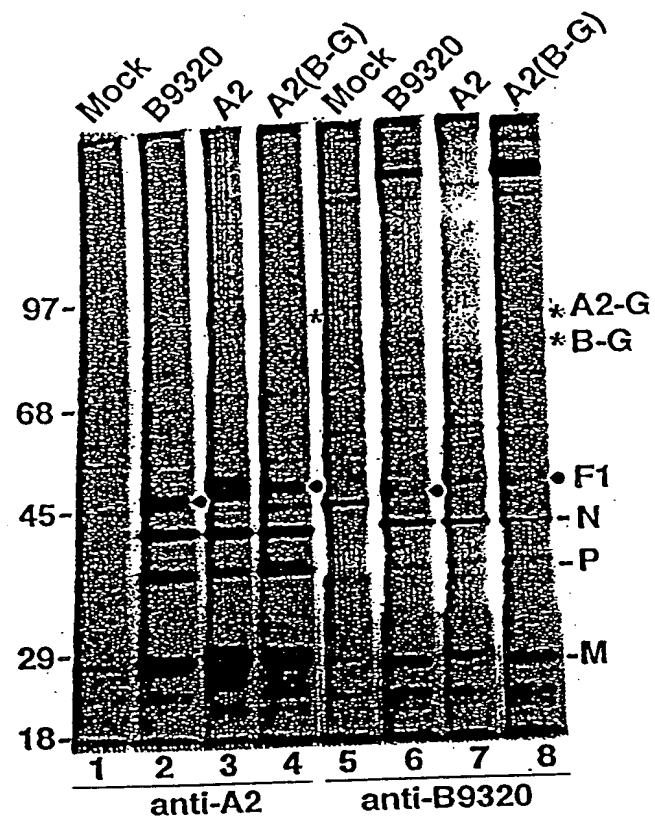


FIG. 7

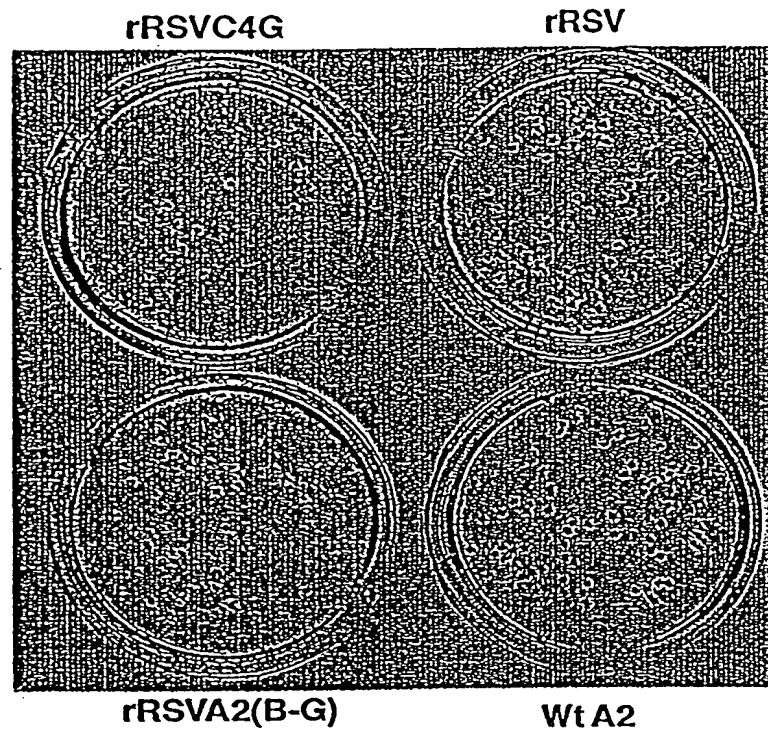


FIG. 8



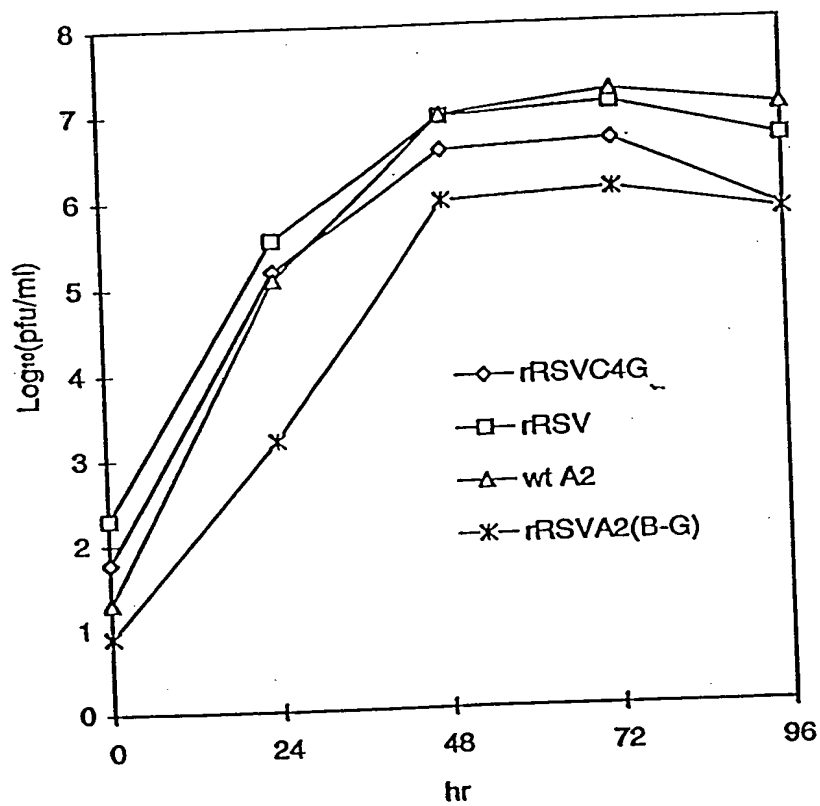


FIG. 9

MDPTINGNSANVLT	DSYLKGVISFSECNA	LGSYIFNGPYLKNDY	TNLSRQNPLIEHMN	LKKNITQSLISKYH	75
KGEIKLEPTFYQSL	IMTYKSMTSSEQIAT	TNLLKKIIRRAIEIS	DVKVYAILNKLGLKE	KDKIKSNNGODEDNS	150
VITTIKIDILSAVK	DNQSHLKADKNHSTK	QKDTIKTTLKKLMC	SMQHPPSWLIHWENL	YTKIANILTYRSNE	225
VGNHGFTLIDNQTL	GFQFILNQYGCIVYH	KELKRITVTYVNOFL	TWKDISLSRLNVCLI	TWISNCINTINKSLG	300
LRGFFNNVILTQLEL	YGDCLKLFHNEGfy	ITKEVEGFIMSLJLN	ITEEDQFRKRFYNSM	LNNTDAANKAQKNL	375
LSRVCHTLDDKTUSD	NHNGRWIILLSKFL	KLKLAGDNMNLNLS	ELYFLRFIFGHPWV	ERQAMDVKINCNET	450
KFYLLSSLMLRGAF	TYRIIKGFVNNYNRW	PTLRNAIVLPLRWLT	YYKLNTPPSLLELTH	RDLIVLSGLRFYREF	525
RLPKKVDLEMIINDK	AISPPKNLIWTSFPR	NMPSHIQNYIEHEK	LKFSSESDKSRRVLEY	YLRDNKFNECDLYNC	600
VVNQSYLNENHVVVS	LTGKERELSVGRMFA	MQPMFRQVQIIAEK	MIAENILQFFPESLT	RYGDLELQKILELKA	675
GISNKSNNRYNDNNN	YISKCSIIITDLSKEN	QAFRYETSCICSDVL	DELHGVQSLFSWLHL	TIPHVTLICTYRHAP	750
PYIGDHIVIDANNVDE	QSGLYRYHMGGIEGW	CQKLWITIEAISLLDL	ISLKGKFSITALING	DNQSIDISKPIRLME	825
GQTHAQADYLLAIN	LKLLYKEYAGIGHKL	KGTETYISRDMQFMS	KTIQHNGVYYPASIK	KVLRVGPWINITLDD	900
FKVSLSESIGSLTQEL	EYRGESLICSILFRN	VWLXNQIALQLKNHA	LCNNKLYLDILKVLK	HLKTFNLDNIDTAL	975
TYLNNLPMFLGGGDP	NLLYRSFYRRTPDFL	TEAIVHSVFILSYT	NHDLKDKLOLSDDR	LNKFLTCTIITFDKNP	1050
NAEFVTLMRDPQALG	SERQAKITSEINRLA	VTEVLSTAPNKFISK	SAQHYTTTEIDLNDI	MQNIEPTYPHGLRWV	1125
YESLPFYKAEKIVNL	ISGTSITNILEKTS	AIDLTDIDRATEMMR	KNITLLIRILPLDCN	RDKREILSMENLSIT	1200
ELSKYVREBSWSLSN	IVGVTSPSTMYTMDI	DEFMEELSIGTLGLT	YEVAKKLPQVLSVN	PWVGSSTQEFKTMVP	1275
YNRQVLTCKQDQID	LLAKLDWVYASIDNK	IDIVFQNCISFGLSL	MSVVEQFTNVCNRI	YLHRLTVSSRPFCEFP	1350
ASIPAYRTTNYTHDT	SPINRILTEKVGDED	YVELFLSNKTLKSGS	HVNSNLLIAHKISDY	ILIPKLINEIHLAKPP	1425
IFTGDVDIHKLKQVI	QKQHMFLPKISLTQ	YVELFLSNKTLKSGS	YVNSNLLIAHKISDY	FHNITYILSTNLAGHW	1500
ILIIQIMKDSKGIFE	KDWGEGYITDHMFN	LKVFENAYKTYLLCF	HKGYGKAKLECDMNT	SDLLCVLELIDSSYW	1575
KSMKVFLEQKVIKY	ILSQDASLHRVKGCH	SPKLMEFLKRLNVAEF	TVCPWVNVNIDYHPTH	MKAILTYIDLVRMGL	1650
TNIDRITHKNKHKEN	DEFYTSNLFYINYNF	SDNTHLLTKHIRIAN	SELENNYNKLYHPTP	ETLENILANPIKSND	1725
KKTLNDYCIGKNVDS	IMLPLLNNKKLIKSS	AMIRTNYSKQDLYNL	FFMVVIDRIIDHSGN	TAKSNQLYTTTSHQI	1800
SLVHNSITSLYCMPLW	HHINRFNFVFSSTGC	KISIEYILKDLKIKD	PNCIAFIGEGAGNLL	LRTVVELHPDIRYIY	1875
RLSKDCNDHSLPIEF	LRLYNGHTINIDYGEN	LTIPATDATNNIHWS	YLHIKFAEPISLFVC	DAELSVTVNWSKIII	1950
EMSKHVEKCKYCSSV	NKCMMLIVKYHAQDDI	DFKLDNITILKTYVC	LGSKLKGESEVYLVT	IGPANIFFVFNVVQN	2025
AKLILSRKTNFTMPK	KADKESIDANIKSLI	PFLCYPITKKGTNTA	LSKLKSVVSGDILSY	SIAGRNEVFSNKLIN	2100
HKHMNIILKWFENHVLN	FRSTEINYNHLYMVE	STYPYLSELINSLTT	NELKKLIKITGSLLY	NFHNH	2165

Charged Clusters (Amino Acids that are underlined were changed to alanines)

Mutations in cpts-248/404

Mutation in cpts530

FIG. 10

MDPIINGNSANVILT	DSYLKGVISFSECGNA	LGSYIFNGPYLKN DY	TNLSRQNPLIEHNA	LKKLNITQSLISKVH	75
KGEIKLEERTYFQSL	LMTYKSMTSSEQIAT	TNLLKKLIIRRAIEIS	DVKVYAILNKLGLKE	KDKIKSNNGQDEDNS	150
VITTIKDDILSAVK	DNQSHLKADKNHSTK	QKDTIKTTLKKLMC	SMQHPSPWLHWFNL	YTKLNNILQYRSNE	225
VKNEGFTLIDNQTL	GFQFIINQYGCIVYH	KELKRITVTITNQFL	TWKDISLSRLNVCLI	TWISNCLNTLNKSLG	300
LRCGFNNVLTQLFL	YGDCILKLFHNEGFI	IKEVEGFIMSLILN	ITEEDQFRKRFYNM	LNNITDAANKAQKNL	375
LSRVCHTLDDKTVD	NINGRWILLISKFL	KLIKLAGDNNLNL	ELYFLRIFGHPMVD	ERQAMDVKINCNET	450
KPYLLSLSMLRGAF	IYRIITKGFVNINRW	PTRNATVLPRLWT	YKLNTPYPSLLELTE	RDLIVLSGLRFYREF	525
RLPKVDLEMIINDK	AISPPKNLIWTSFPR	NYMPSHIQNYIEHEK	LKFSSEDKSRRVLEY	YLRDNKFNECDLYNC	600
VVNQSYLANPNHVV	LTGKERELSVGRMEA	MQPGMERQVQIIAEK	MIAENILQFFPESLT	RYGDLELQKILELKA	675
GISNKSNRNDNANN	YISKCSIITDLSKEN	QAFRYETSCICSDVL	DELHGVQSLFSWLHL	TIPHVITICTYRHAP	750
PYIGDHIVDLNNVDE	QSGLYRYHMGGIEGW	QOKLWTIEAISLLDL	ISLKGKFSITALING	DNQSIDISKPIRLME	825
GQTHAQADYLLALNS	LKLLYKEYAGIGHKL	KGTEYISRDMQFMS	KTIQHNGVYYPASIK	KVLRVGPWINTILDD	900
FKVSLESIGSLTQEL	EYRGESLLQSLIFRN	VWLYNQIALQKNHA	LCNNKLYLDILKVLK	HLKTFENLDNIDTAL	975
TLVYNLPMLEGGGDP	NLLYRSFYRRTPDFL	TEAIVHSVFILSYIT	NHDLKDKLQDLSDDR	LNKFLTCTITFDKNP	1050
NAEFVTLMRDPOALG	SERQAKITSETNRLA	VTEVLSTAPNKIFSK	SAQHYTTTEIDLNDI	MQNIEPTYPHGLRVV	1125
YESLPFYKAEKIVNL	ISGTSKITTNILEKTS	AIDLTDIDRATENMR	KNITLLIRILPLDQN	RDKREILSMENLSIT	1200
ELSKYVRERSWSLSN	IVGVTSPTIMYTMDI	KYTTSTISSGIIIEK	YNVNSLTRGERGPTK	PWVGSSSTQEKKTMFV	1275
YNRQVLTKKQORDID	LLAKLDWVYASIDNK	DEFMEELSIGTLGLT	YEKAKKLFPOYLSVN	YLHRLTVSSRPQEFPP	1350
ASIPAYRTINHYFDT	SPINRILTEKYGDED	IDIVFQNCISFGLSL	MSVVEQFTNVCPNRI	ILIPKLINEIHLKPP	1425
IFTGDVDIHKLKQVI	OKQEMFLPKISLTQ	YVELELSNKLKSGS	HVNSNLILAHKISDY	FHNTYILSTNLAGHW	1500
ILIIQLMKDSKGIFE	KDWGEGYITDHFMIN	LKVFENAYKTYLLCF	HKGYGKAKLECDMNT	SDLLCVLELIDSSYM	1575
KSMKSVFLEQKVIRY	LLSQDASLHRVKGCH	SFKLWFLKRLNVAEF	TVCPWVNVNIDYHPTH	MKAILTYIDLVRMGL	1650
INIDRITHKQKHEN	DEFYTSNLFYINYNF	SDNTHLLTKHIRIAN	SELENNYNKLYHPTP	ETLENILANPIKSND	1725
KKTLNDYCIGKNVDS	IMLPLLSNKKLIKSS	AMIRTNYSKQDLXNL	FPMVVIDRIIDHSGN	TAKSNQLYTTTSHQI	1800
SLVHNSTSLYCMLPW	HHINRFNFVFSSTGC	KISIEYILKDLKIKD	PNCIAFEGEGAGNLL	LRTVVVELHPDIRYIY	1875
RSIKDCNDHSLPIEF	LRLVNGHINIDYGEN	LTIPATDATNNHWS	YLHIKFAEPISLFVC	DAELSVTVNWSKIII	1950
EWSKHVKKCKYCSSL	NKCMILIVKYHAQDDI	DFKLDNITILKTYVC	LGSKLKGSEVYLVLT	IGPANIFFPVFNWQON	2025
AKLILSRQNFIMPX	KADKESIDANIKSLI	PFLCYPITKKGINTA	LSKLKSVVSGDILSY	SIAGRNEVFNSKNLIN	2100
HKHMNLIKWFNHVLN	FRSTELNYNHLYMAVE	STYPYLSLNLNSLTT	NELKLIKITGSLLY	NFHNE	2165

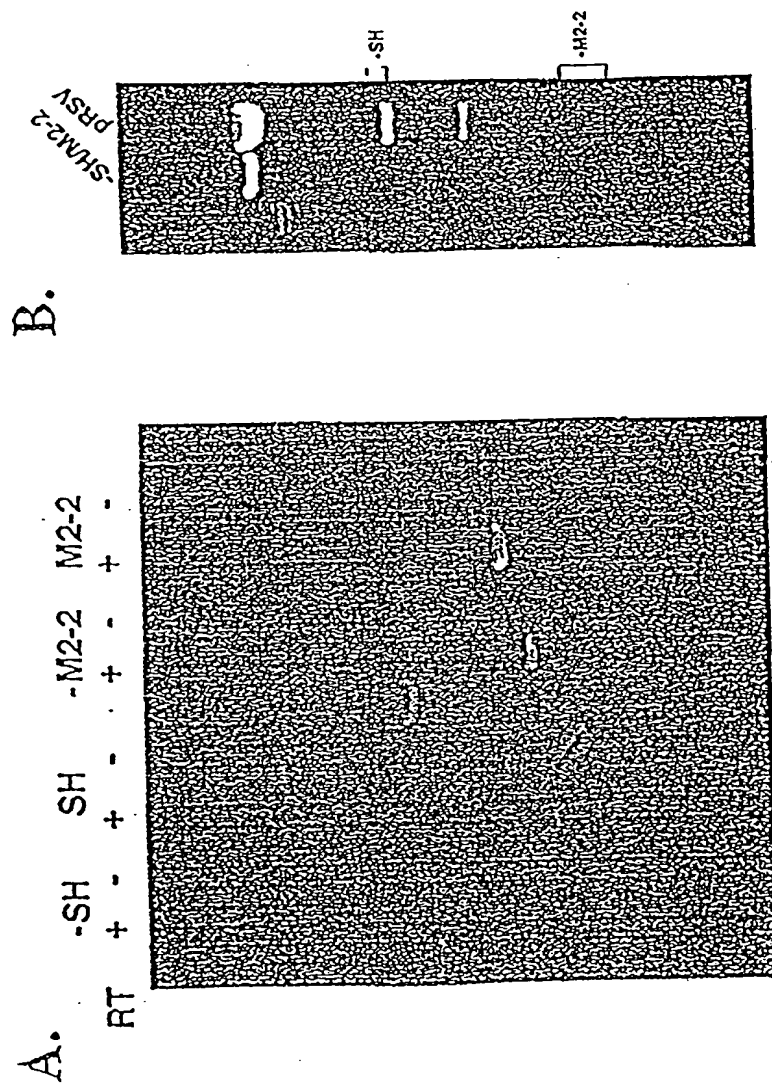
C Cysteine residues

C Cysteine residues that were changed to valine or aspartic acid

C Cysteine residue deleted

FIG. 11

66E080" 92089E60



FIGS. 12A-B

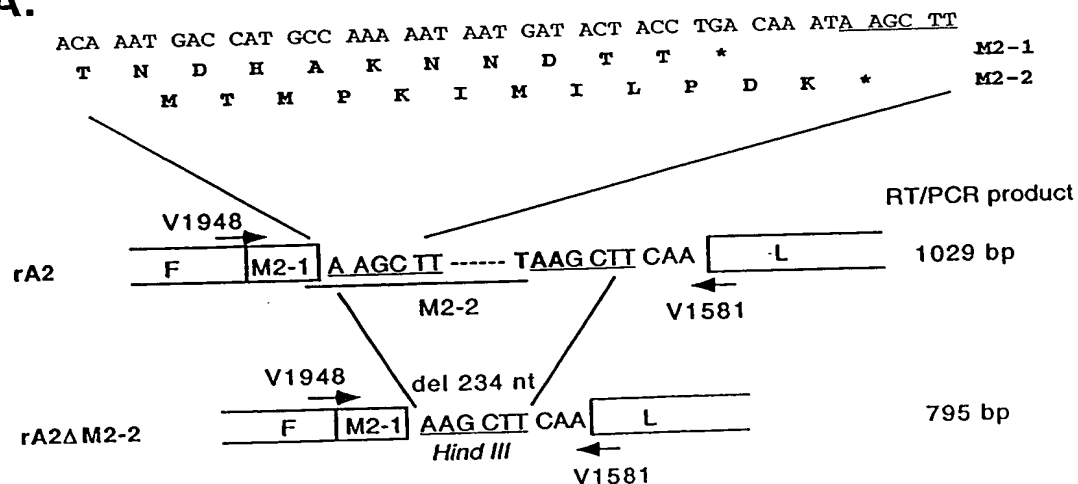
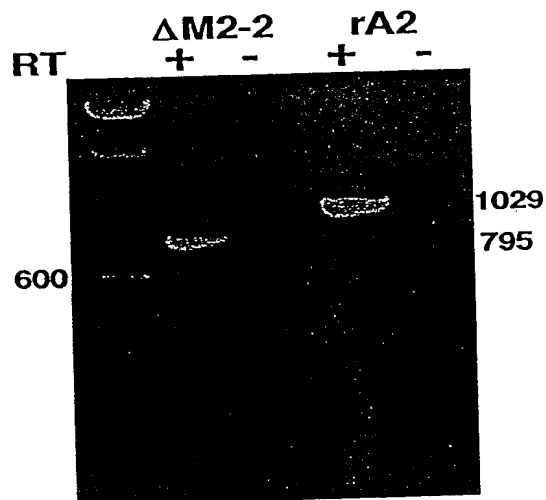
**A.****B.**

FIG. 13

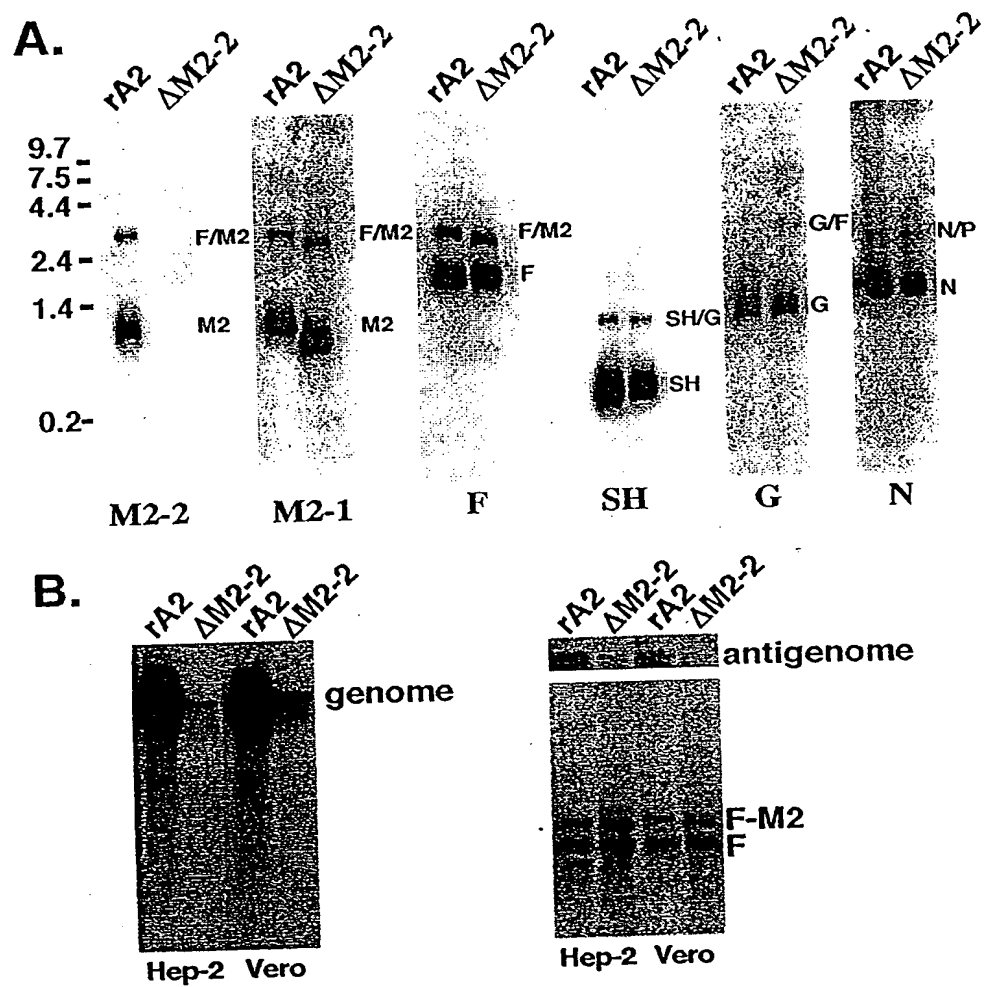


FIG. 14

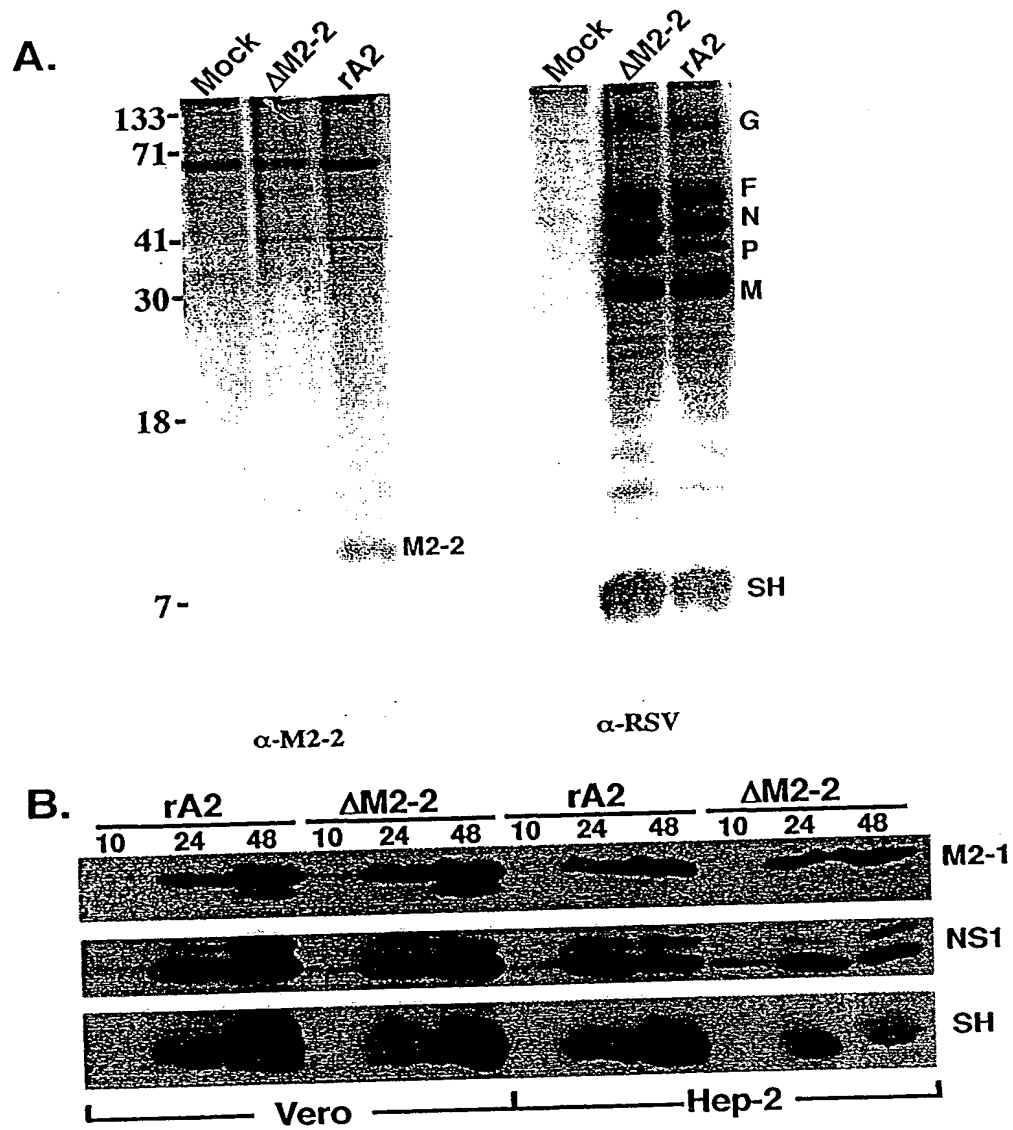


FIG. 15

666080\* 92089E60

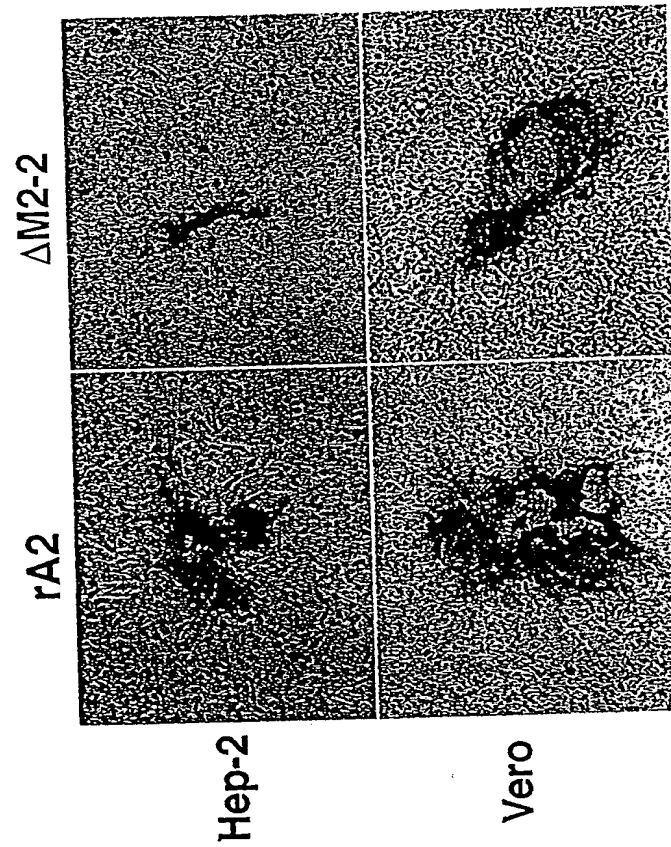


FIG. 16



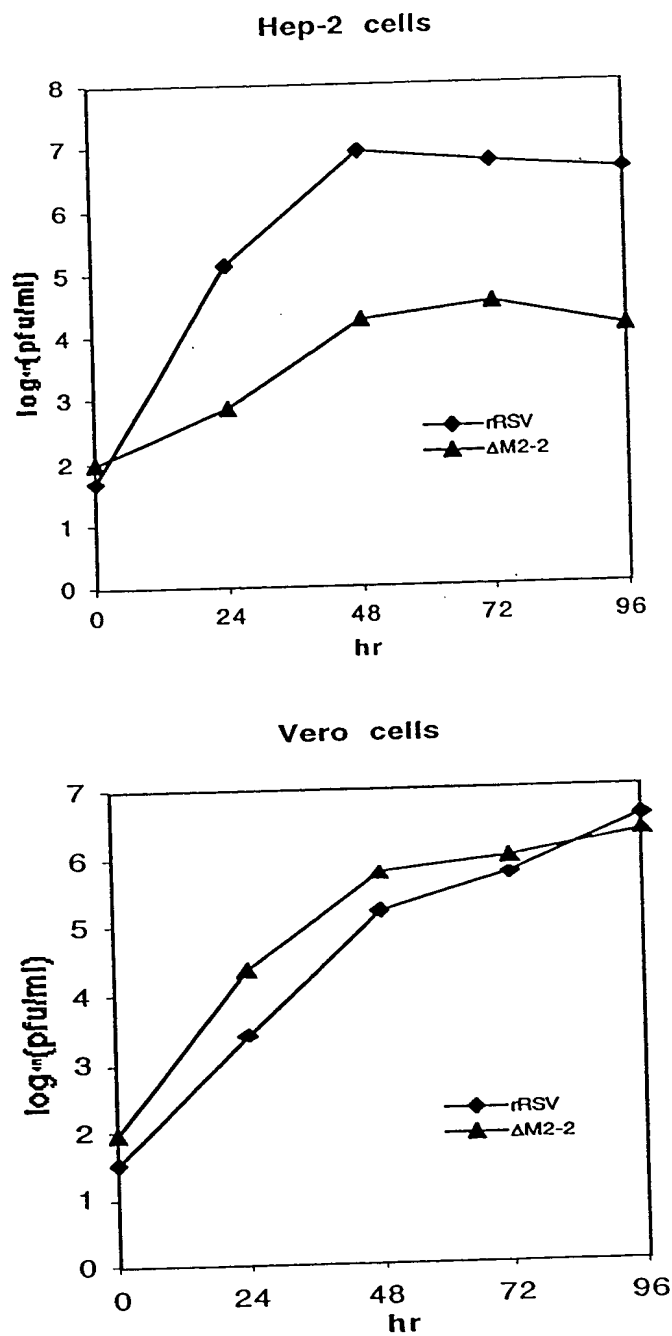


FIG. 17

09368076-000360

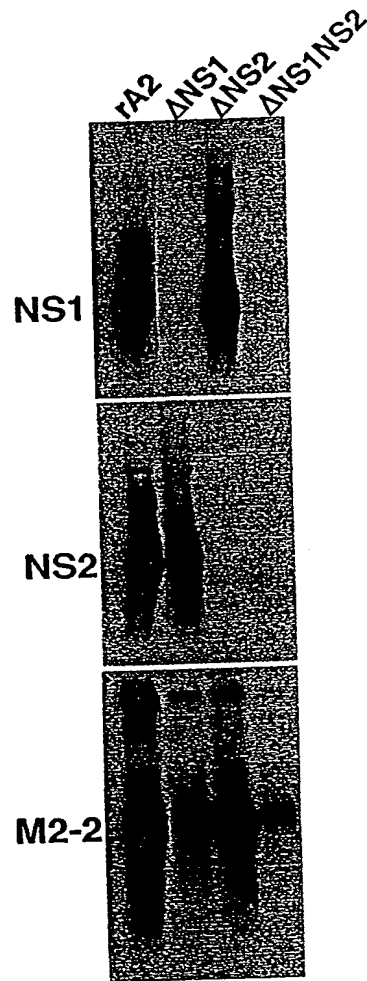


FIG. 18

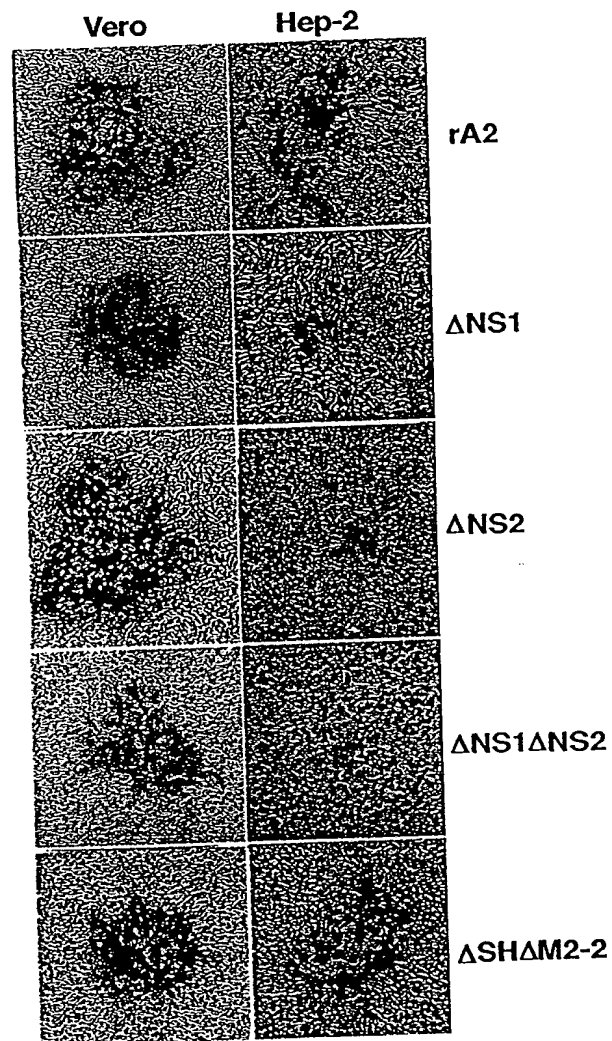


FIG. 19

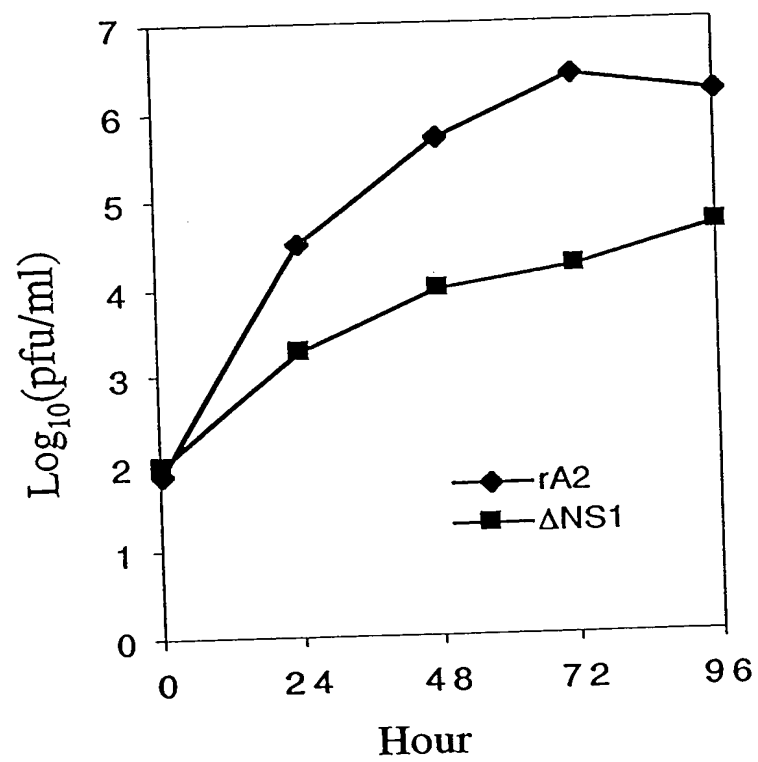


FIG. 20

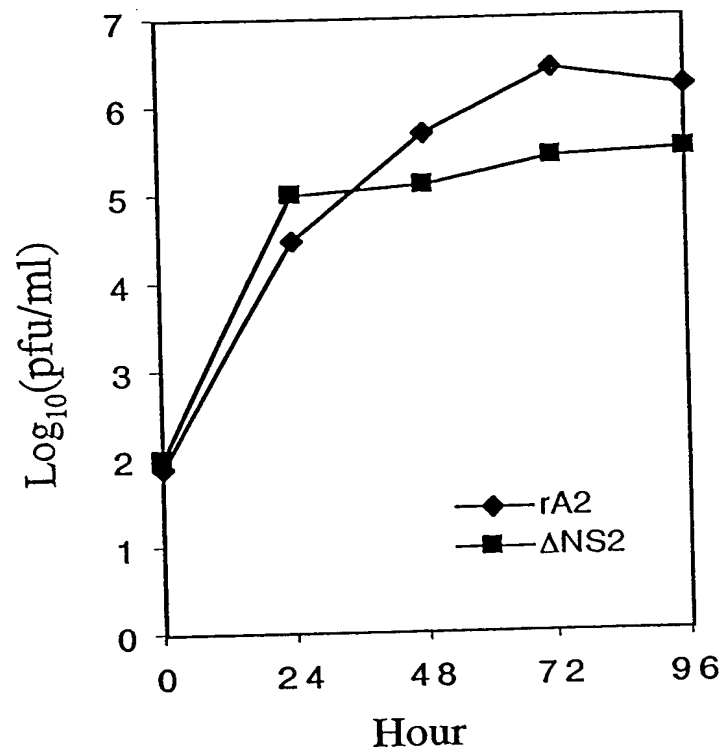


FIG. 21

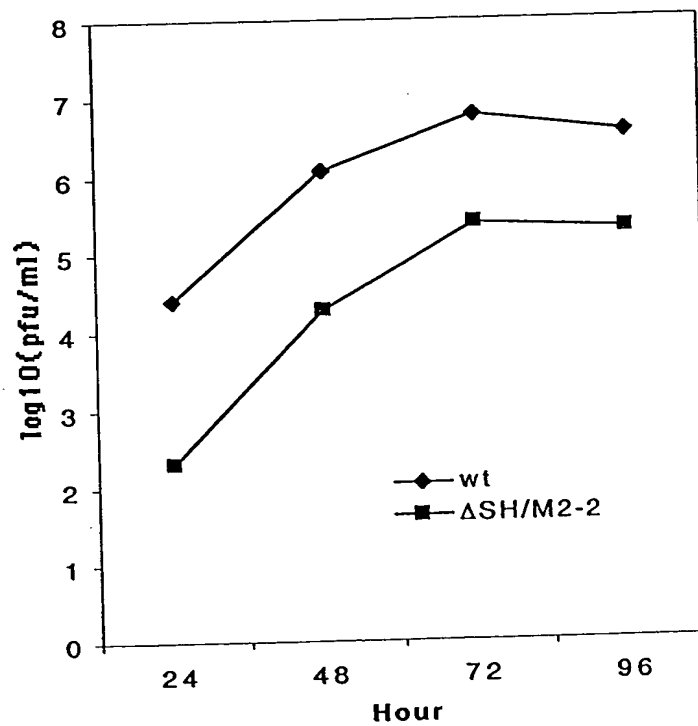


FIG. 22

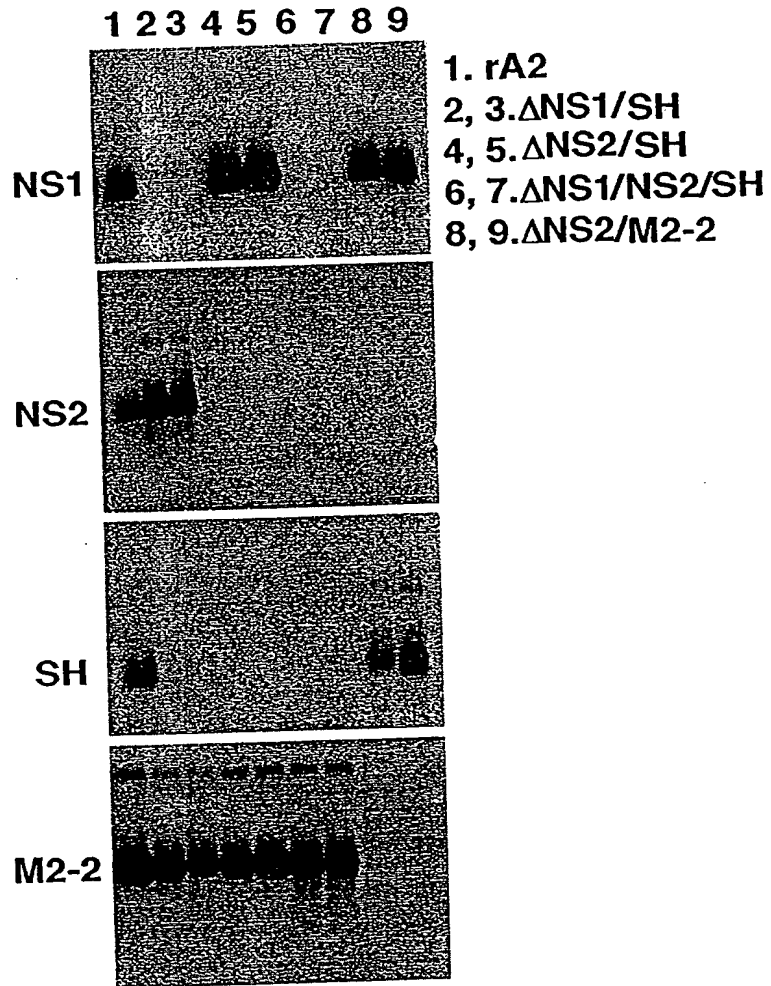


FIG. 23

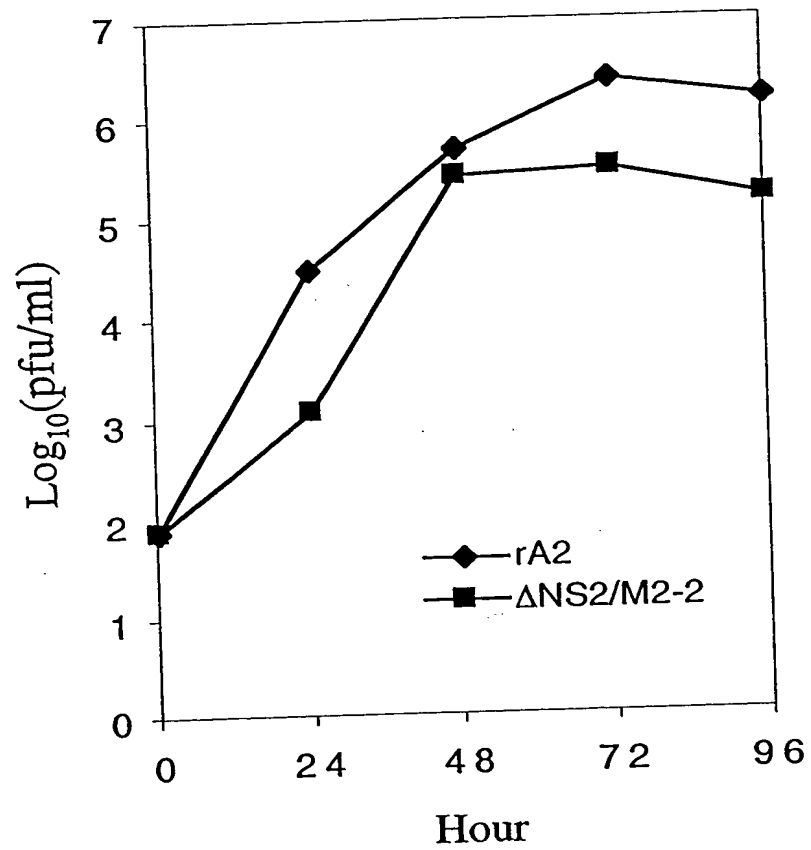


FIG. 24



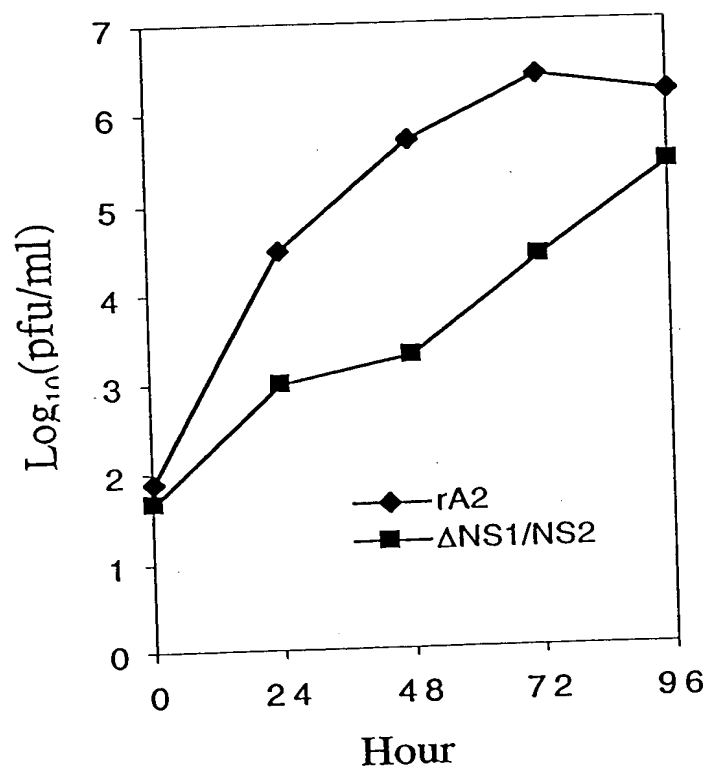


FIG. 25